

What is claimed is:

1. A method of reducing perceived pain resulting from puncturing of skin at a puncture site, said method comprising:

generating a sensory distraction at or adjacent the puncture site; and

puncturing the skin at the puncture site simultaneously with or after the generation of the sensory distraction.

2. The method of Claim 1, wherein the step of generating a sensory distraction and the step of puncturing the skin are performed using a single device.

3. The method of Claim 1, wherein the step of generating a sensory distraction comprises impacting a first element with a second element to generate a vibration for transmission to the puncture site.

4. The method of Claim 3, wherein the step of impacting a first element with a second element comprises impacting a stop member with a lancet drive member.

5. The method of Claim 1, wherein the step of generating a sensory distraction comprises impacting the puncture site with a stimulator member.

6. The method of Claim 5, wherein the step of impacting the puncture site with a stimulator member comprises implementing a varied length scheme for timing the puncturing simultaneously with or after the stimulator impact.

7. The method of Claim 5, wherein the step of impacting the puncture site with a stimulator member comprises implementing a two-stage scheme for timing the puncturing simultaneously with or after the stimulator impact.

8. The method of Claim 1, wherein the sensory distraction comprises vibration, sound, impact, electrical stimulation, or heat.

9. The method of Claim 8, further comprising the step of generating a second sensory distraction remote from the puncture site, wherein the second sensory distraction comprises light, taste, sound, or smell.

10. The method of Claim 8, wherein the step of generating a sensory distraction comprises manually pumping or compressing pointed teeth against the skin at the puncture site.

11. A device for penetrating the skin of a human or animal subject, comprising:

means for puncturing the skin at a puncture site; and

means for generating a sensory distraction at or adjacent the puncture site before or simultaneously with the puncturing of the skin.

12. The device of Claim 10, wherein the means for puncturing the skin comprises a lancet or a hypodermic needle.

13. The device of Claim 10, wherein the means for generating a sensory distraction comprises a first element for impacting a second element and generating a vibration for transmission to the puncture site.

14. The device of Claim 13, wherein the first element comprises a stop member and the second element comprises a lancet drive member.

15. The device of Claim 13, wherein the device further comprises a housing including the stop member, at least a portion of the housing including a vibration-transmitting material.

16. The device of Claim 10, wherein the means for generating a sensory distraction comprises a stimulator member and the means for puncturing the skin comprises a lancet.

17. The device of Claim 16, wherein the stimulator member is longer than the lancet, and further comprising a drive spring for driving both the stimulator member and the lancet.

18. The device of Claim 16, further comprising a stimulator drive spring for driving the stimulator member and a lancet drive spring for driving the lancet.

19. The device of Claim 18, further comprising a lancet drive member that is driven by the lancet drive spring and that has a trigger finger, wherein the stimulator member includes an actuator contact surface that engages the trigger finger to fire the lancet.

20. The device of Claim 18, further comprising a transducer or contact for generating the sensory distraction.

21. The device of Claim 18, further comprising a plurality of protrusions for generating the sensory distraction.

22. A lancing device comprising:

a housing;

a lancet defining at least one contact surface;

a drive mechanism including a drive member that engages and drives the lancet;
and

an endcap that rotates relative to the housing and that has a plurality of stop surfaces that are selectively aligned with and engaged by the lancet contact surface to limit forward lancet movement.

23. The lancing device of Claim 22, wherein the endcap comprises an inner cap and an outer cap that rotates relative to the inner cap.

24. The lancing device of Claim 22, wherein the drive member comprises a carriage that receives the lancet and that has a flared proximal section defining a flared bore that receives the endcap stop surfaces not aligned with and engaged by the lancet body engagement surface.

25. The lancing device of Claim 22, wherein the endcap has a plurality of keeper arms extending distally therefrom for coupling the lancet to the endcap, the keeper arms including inward retainer tabs that can pass through keeper slots formed in a ridge on the lancet and that catch on the ridge to hold the lancet to the endcap, the keeper arms further having outward guide tabs that are received in female key guide slots in the carrier.